IN THE CLAIMS

Please amend the claims as follows:

1. (currently amended) A method for training a receiving modem, said method comprising:

  performing segment 1 training by waiting for silence for a first set of symbol intervals;

  performing segment 2 training by sending a plurality of alternating AB symbols for a second set of symbol intervals;

  performing segment 3 training by sending a plurality of CD symbols for a third set of symbol intervals to generate a plurality of coefficients for an adaptive equalizer within said receiving modem, wherein said third set of symbol intervals includes no more than 64 symbol intervals; and

  performing segment 4 training by sending a plurality of scrambled binary "1" symbols for a fourth set of symbol intervals to adjust said plurality of coefficients of said adaptive equalizer within said receiving modem.

2. (original) The method of Claim 1, wherein said first set of symbol intervals includes 48 symbol intervals.

3. (original) The method of Claim 1, wherein said second set of symbol intervals includes 64 symbol intervals.

4. canceled

5.　　(original) The method of Claim 1, wherein said fourth set of symbol intervals includes 48 symbol intervals.

6.　　(original) The method of Claim 1, wherein said performing segment 4 training further includes concurrently verifying a plurality of estimated symbols generated from a subset of said plurality of scrambled binary 1 symbols.

7.　　(currently amended) A computer <u>usable medium having a computer</u> program product ~~residing on a computer usable medium~~ for training a receiving modem, said computer <u>usable medium</u> ~~program product~~ comprising:

　　　　computer program code ~~means~~ for performing segment 1 training by waiting for silence for a first set of symbol intervals;

　　　　computer program code ~~means~~ for performing segment 2 training by sending a plurality of alternating AB symbols for a second set of symbol intervals;

　　　　computer program code ~~means~~ for performing segment 3 training by sending a plurality of CD symbols for a third set of symbol intervals to generate a plurality of coefficients for an adaptive equalizer within said receiving modem<u>, wherein said third set of symbol intervals includes no more than 64 symbol intervals</u>; and

　　　　computer program code ~~means~~ for performing segment 4 training by sending a plurality of scrambled binary "1" symbols for a fourth set of symbol intervals to adjust said plurality of coefficients of said adaptive equalizer within said receiving modem.

8.　　(currently amended) The computer ~~program product~~ <u>usable medium</u> of Claim 7, wherein said first set of symbol intervals includes 48 symbol intervals.

9. (currently amended) The computer ~~program product~~ <u>usable medium</u> of Claim 7, wherein said second set of symbol intervals includes 64 symbol intervals.

10. canceled

11. (currently amended) The computer ~~program product~~ <u>usable medium</u> of Claim 7, wherein said fourth set of symbol intervals includes 48 symbol intervals.

12. (currently amended) The computer ~~program product~~ <u>usable medium</u> of Claim 7, wherein said <u>computer</u> program code ~~means~~ for performing segment 4 training further includes <u>computer</u> program code ~~means~~ for concurrently verifying a plurality of estimated symbols generated from a subset of said plurality of scrambled binary 1 symbols.

13. (currently amended) A modem comprising:

    means for waiting for silence for a first set of symbol intervals;

    means for receiving a plurality of alternating AB symbols for a second set of symbol intervals;

    means for receiving a plurality of CD symbols for a third set of symbol intervals to generate a plurality of coefficients for an adaptive equalizer within said modem<u>, wherein said third set of symbol intervals includes no more than 64 symbol intervals</u>; and

    means for receiving a plurality of scrambled binary "1" symbols for a fourth set of symbol intervals to adjust said plurality of coefficients of said adaptive equalizer.

14. (original) The modem of Claim 13, wherein said first set of symbol intervals includes 48 symbol intervals.

15.   (original) The modem of Claim 13, wherein said second set of symbol intervals includes 64 symbol intervals.

16.   canceled

17.   (original) The modem of Claim 13, wherein said fourth set of symbol intervals includes 48 symbol intervals.

18.   (original) The modem of Claim 13, wherein said means for performing segment 4 training further includes means for concurrently verifying a plurality of estimated symbols generated from a subset of said plurality of scrambled binary 1 symbols.